NOTES: 1. ALL CLAMPS AND BONDING DEVICES SHALL BE BRONZE. ALL CABLES AND STRAPS SHALL BE COPPER. AND ALL BOLTS, SCREWS, AND FASTENING HARDWARE SHALL BE BRONZE OR BRASS UNLESS OTHERWISE SHOWN. 2. BOND A/C, VENT FAN. HOOD, FLIGHT CHECK ANTENNA MAST, DOOR FRAME, JUNCTION BOXES, AND ANY MISC EXTERIOR METAL OBJECTS TO DOWN CONDUCTORS WITH MIN #6 BARE - THOMPSON #14X OR #509X. NO CONDUCTOR SHALL BE BENT TO LESS THAN AN 8" RADIUS NOR SHALL BE BENT TO LESS THAN A 90° ANGLE. 4. WHERE TOWERS OR MASTS SUCH AS GLIDE SLOPE, MIDDLE MARKER, OUTER MARKER, OR FAR FIELD MONITOR TOWERS OR MASTS ARE LOCATED WITHIN 30 FEET OF THE NEAREST PART OF THE BUILDING, THE PERIMETER #4/O GROUNDING CONDUCTOR SHALL EXTEND AROUND THE ASSOCIATED TOWER OR MAST AND CONNECT TO TWO ADDITIONAL GROUNDING ELECTRODES PLACED ON EITHER SIDE OF THE ASSOCIATED STRUCTURE. ASSOCIATED TOWERS OR MASTS LOCATED FARTHER THAN 30 FEET FROM THE BUILDING SHALL HAVE THEIR OWN PERIMETER GROUNDING SYSTEM CONSISTING OF FOUR GROUNDING ELECTRODES AND SURROUNDING #4/O COUNTERPOISE. THE SEPARATE PERIMETER GROUNDING SYSTEM SHALL BE CONNECTED TO THE BUILDING SYSTEM BY A BARE CONDUCTOR OF MINIMUM #4/O SIZE. -AIR TERMINAL. THOMPSON #660 1/2" X 36" (TYP OF 2) (NOTE 5) AIR TERMINAL BRACE ASSEMBLY THOMPSON #82. 24" LONG FOR USE WITH 36" AIR TERMINAL CABLE HOLDER. THOMPSON #166XX 5. BUILDINGS WITH FLAT RODFS REQUIRE A THOMPSON #660LA AIR TERMINAL ON #688F-4 ADHESIVE BASE AND #82 TRIPDD BRACE WITH ADHESIVE FEET AT EACH CORNER AND A PERIMETER ROOF CONDUCTOR (THOMPSON #32) CONNECTING ALL TERMINALS IN PLACE OF RIDGE TERMINALS AND CONDUCTOR AS SHOWN. ALONG ROOF EDGE, 36" OC MAX ROOF AND DOWN CONDUCTORS THOMPSON #32 6. GROUNDING BUSHINGS SHALL BE INSTALLED AT EACH END OF METALLIC CONDUITS. A #6 BARE COPPER GROUNDING CONDUCTOR SHALL BE ROUTED INSIDE CONDUIT AND SHALL BE BONDED TO EACH GROUNDING BUSHING. CONNECT CONDUCTOR TO A GROUNDING ROD USING AN EXOTHERMIC WELD. STANDARD COPPER RIDGE CABLE SUPPORT. THOMPSON 7. THE STAND-OFF INSULATORS SHALL BE SECURED TO THE WALL USING A PAINTED PLYWOOD PANEL SHIMMED OUT FROM THE WALL, GALVANIZED CHANNEL OR METAL MOUNTING BRACKET SCREWED TO THE WALL, OR AS SHOWN ON THE EQUIPMENT SHELTER DRAWING. THE FASTENERS SHALL BE OF SUFFICIENT LENGTH TO PASS THROUGH THE MOUNTING CHANNEL. BRACKET, OR OTHER MOUNTING BODY (INCLUDING WASHERS OR OTHER SHIMS). AND BE SNIGG WHEN FILLY FROAGED IN THE STAND-DEF INSULA #533 ALONG RIDGE. 36" OC MAX PARALLEL CLAMP. THOMPSON #565 (TYP.) BONDING STRAP DOOR-TO-FRAME THOMPSON / SHIMS). AND BE SNUG WHEN FULLY ENGAGED IN THE STAND-OFF INSULATOR. PIPE CLAMP, THOMPSON #240X -SEE NOTE 2 8. TWO-BOLT CONNECTORS WITH SILICON BRONZE 3/8"-16UNC X 1 1/2" HEX HEAD BOLT, NUT, AND LOCK WASHER ARE REQUIRED FOR ALL CONDUCTORS TO BE CONNECTED TO THE GROUNDING PLATES. ONE-BOLT CONNECTORS ARE NOT ACCEPTABLE, NOTE THAT ONLY ONE OF THE HOLES REQUIRED FOR INSTALLING EACH 2-BOLT CONNECTOR IS SPECIFIED IN DETAIL "1". THE INSTALLER OF THE CONNECTOR SHALL DRILL THE SECOND HOLE TO MATCH THE BOLT PATTERN OF THE SELECTED CONNECTOR. #588-POINT BRACKET THOMPSON #532 (TYP OF 2) A/C 9. ALL EXTERIOR GROUNDING MATERIALS FOR THE SHELTERS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. TO ADJACENT TOWER (NOTE 4) FLIGHT CHECK ANTENNA MAST SEE NOTE 2-GROUNDING BUSHING, PROPERLY SIZED FOR CONDUIT AND #2 BARE CONDUCTOR. OZ/GEDNEY TYPE RBLG SERIES MEETS SERVICE ENTRANCE 5' (TYP) SPECIFICATION. (FAN) DIRECT-EARTH BURIED CABLES (GUARD WIRE NOT SHOWN) BONDING PLATE. THOMPSON #702 36" OC MAX ON GALVANIZED RIGID STEEL CONDUIT #2 BARE COPPER CROUNDING ENT STEEL SIDING JB S<sub>N</sub> S-CABLES CONTINUE IN CONDUIT TO EQUIPMENT GROUNDING CLAMP. PROPERLY SIZED FOR CONDUIT AND #2 BARE CONDUCTOR. BURNDY GAR SERIES MEETS SPECIFICATIONS. #2 BARE COPPER BONDING PLATE. THOMPSON #702 PERIMETER GROUNDING CONDUCTOR #4/O COPPER. 30" DEEP GROUNDING PLATE PER DETAIL "1" 2' TO 6' CONTRACTOR SHALL SUBMIT REQUESTS FOR SUBSTITUTION OF SPECIFIC MANUFACTURER'S ITEMS SHOWN PER PARAGRAPH FOR THE SPECIAL SPECIFICATIONS. -DOWN CONDUCTOR IN 3/4'
PVC CONDUIT SWEEP TO GROUNDING ELECTRODE 12" ABOVE GRADE CONDUCTOR (TYP OF 2) SHEET 41 OF 66 TO ADJACENT TOWER EXOTHERMIC WELD DEPARTMENT OF TRANSPORTATION TYPICAL ALL GROUNDING ELECTRODE CONNECTIONS GROUNDING ELECTRODE.
3/4" X 10' COPPERCLAD
STEEL. TOP SHALL BE
A MINIMUM DF 12"
DEEP (TYPICAL OF 4 FEDERAL AVIATION ADMINISTRATION GREAT LAKES REGION CHICAGO, ILLINOIS OR MORE. SEE NOTE 4.)-LIGHTNING PROTECTION FOR SMALL ILS/ALS BUILDINGS AURORA AURORA MUNICIPAL AIRPORT EVIEWED BY PLATFORM MGR, CLELAND MICHEEL

OATE 02/27/2006 JCN

DRAWING NO TAD ISSUED BY CHICAGO NAS TAD IMPLEMENTATION
CENTER REDLINE CHECKED ARR-D-MALSR33-E04 DESCRIPTION